

REFERENCES

- ATCC, 2014. *Animal Tissue Culture Guide*. Manassas: American Type Culture Collection.
- Bieberstein, U., Berbner, T., Islinger, M. & Braunbeck, T., 1999. Immunohistochemical localization of vitellogenin in rainbow trout (*Oncorhynchus mykiss*) hepatocytes using immunofluorescence. *The Science of The Total Environment*, 233(1-3), pp.67-75.
- Blair, J. B., Ostrander, G. K., Mill, M. R. & Hinton, D. E., 1995. Isolation and Characterization of Biliary Epithelial Cells from Rainbow Trout Liver. *In Vitro Cellular & Developmental Biology. Animal*, 31(10), pp.780-789.
- Bols, N. C., Dayeh, V. R., Lee, L. E. J. & Schirmer, K., 2005. Use of fish cell lines in the toxicology and ecotoxicology of fish. Piscine cell lines in environmental toxicology. *Biochemistry and Molecular Biology of Fishes*, Volume 6.
- Braunbeck, T. & Storch, V., 1992. Senescence of hepatocytes isolated from rainbow trout (*Oncorhynchus mykiss*) in primary culture: an ultrastructural study. *Protoplasma*, Volume 170, pp.138-159.
- Doke, S. K. & Dhawale, S. C., 2015. Alternatives to animal testing: A review. *Saudi Pharmaceutical Journal*, Volume 23, pp.223-229.
- Dutta, H. M. & Datta-Mushi, J. S., 1996. *Fish Morphology*. Florida: CRC Press.
- El-Dakhly, A. T., Azab, A. E. S., Alrawi, Q. K. & Lashkham, N. M., 2016. Evaluation of substitution of fetal calf serum in VERO cell cultures by fish serum. *International Journal of Current Research and Academic Review*, 2(1-8), p.3.
- Freshney, I., 2000. *Culture of Animal Cells: A Manual of Basic Technique*. 4th ed. New York: John Wiley and Sons Incorporation.
- General Electric Healthcare, 2007. *Cell Separation Media*. [Online] Available at: http://www.gelifesciences.co.kr/wp-content/uploads/2016/07/023.6_Cell-Separation-Media.pdf [Accessed 15 March 2018].
- Ghosh, C., Zhou, Y. L. & Collodi, P., 1994. Derivation and characterization of a zebrafish liver cell line. *Cell Biology and Toxicology*, Volume 10, pp.167-176.
- Gibco, 2015. *Cell Culture Basics Handbook*. Massachusetts: Thermo Fisher Scientific Incorporation.
- Klaunig, J. E., Ruch, R. J. & Goldblatt, P. J., 1985. Trout hepatocyte culture isolation and primary culture. *In Vitro Cellular & Developmental Biology*, Volume 21, pp.221-228.

- Kocal, T., Quinn, B. A., Smith, I. R., Ferguson, H. W. & Hayes, M. A., 1988. Use of Trout Serum To Prepare Primary Attached Monolayer Cultures of Hepatocytes from Rainbow Trout (*Salmo Gairdneri*). *In Vitro Cellular and Developmental Biology*, 24(4).
- Kramar, R., Goldenberg, H., Bock, P. & Klobucar, N., 1974. Peroxisomes in the Liver of the Carp (*Cyprinus carpio* L.) Electron Microscopic Cytochemical and Biochemical Studies. *Histochemistry*, Volume 40, pp.137-154.
- Lacerda, S. M. S. N., Batlouni, S. R., Silva, S. B. G., Homem, C. S. P. & Franca, L. R., 2006. Germ cells transplantation in fish: the Nile-tilapia model. *Animal Reproduction*, 3(2), pp.146-159.
- Maitre, J. L., Valotaire, Y. & Guguen-Guillouzo, C., 1986. Estradiol-17B stimulation of vitellogenin thesis in primary culture of male rainbow trout hepatocytes. *In Vitro Cellular & Developmental Biology*, Volume 22, pp.337-343.
- Mokhtar, D. M., 2015. Histological, histochemical and ultrastructural characterization of the pancreas of the grass carp (*Ctenopharyngodon idella*). *European Journal of Anatomy*, 19(2), pp.145-153.
- Mommsen, T. P. & Lazier, C. B., 1986. Stimulation of estrogen receptor accumulation by estradiol in primary cultures of salmon hepatocytes. *Federation of European Biochemical Societies*, Volume 195, pp.269-271.
- Mommsen, T. P., Moon, T. W. & Walsh, P. J., 1994. Hepatocytes: isolation, maintenance and utilization. In: M. T. Hochachka PW, ed. *Biochemistry and Molecular Biology of Fishes, Analytical Techniques*. Amsterdam: Elsevier, pp.355-372.
- Mumford, S., Heidel, J., Smith, C., Morrison, J., McConnell, B. & Blazer, V., 2007. *Fish Histology and Histopathology*. West Virginia, U. S. Fish & Wildlife Service-National Conservation Training Center.
- Nejedli, S. & Gajger, I. T., 2013. Hepatopancreas in some sea fish from different species and the structure of the liver in teleost fish, common pandora, *Pagellus erythrinus* (Linnaeus, 1758) and whiting, *Merlangius merlangus euxinus* (Nordmann, 1840). *Veterinarski Arhiv*, 83(4), pp.441-452.
- Nurhayati, S., 2017. *Viabilitas dan karakter morfologi sel-sel hepatopankreas ikan nilem (Osteochilus vittatus) pada kondisi in vitro*, Purwokerto: Fakultas Biologi UNSOED.
- Pandey, G., 2013. Overview of Fish Cell Lines and Their Uses. *International Journal of Pharmaceutical and Research Science*, 2(3), pp.580-590.
- Pertoft, H., 2000. Fractionation of cells and subcellular particles with. *Journal of Biochemical and Biophysical Methods*, Volume 40, pp.1-30.

- Pesonen, M. & Andersson, T. B., 1996. Fish primary hepatocyte culture; an important model for xenobiotic metabolism and toxicity studies. *Aquatic Toxicology*, Volume 37, pp.253-267.
- Pino, P. A. & Cardona, A. E., 2011. Isolation of Brain and Spinal Cord Mononuclear Cells Using Percoll Gradients. *Journal of Visualized Experiments*, Volume 48, pp.1-3.
- Prasetiadi, B., 2009. *Pengaruh Fotoperiode Terhadap Struktur Hepar Benih Ikan Nilem (Osteochilus hasselti C.V.) Umur Dua Bulan*, Purwokerto: Fakultas Biologi Universitas Jenderal Soedirman.
- Roth, V., 2006. *Doubling Time Computing*. [Online] Available at: <http://www.doubling-time.com/compute.php> [Accessed 11 August 2018].
- Roux, F., 2015. *Fish cell lines and their potential uses in ecotoxicology: from cytotoxicity studies and mixture assessment to a co-culture model and mechanistic analysis*, Gothenburg: University of Gothenburg.
- Rubin, H., 1997. Cell aging *in vivo* and *in vitro*. *Mechanism of Aging and Development*, Volume 98, pp.1-35.
- Segner, H., 1998. Isolation and primary culture of teleost hepatocytes. *Comparative Biochemistry and Physiology*, Volume 120, pp.71-81.
- Segner, H., Blair, J. B., Wirtz, G. & Miller, M. R., 1994. Cultured trout liver cells: utilization of substrates and response to hormones. *In Vitro Cellular & Developmental Biology*, Volume 30A, pp.306-311.
- Strober, W., 2015. Trypan Blue Exclusion Test of Cell. *Current Protocols in Immunology*, Volume 111, pp.A3.B.1-A3.B.3.
- Tanuma, Y., Ohata, M. & Ito, T., 1982. Electron Microscopic Study on the Sinusoidal Wall of the Liver in the Flatfish, *Kareius bicoloratus*. *Archivum histologicum Japonicum*, 45(5), pp.453-471.
- Tyas, L. G., 2013. *Evaluasi tahapan sel spermatogenik ikan nilem (Osteochilus hasselti C.V.) yang diisolasi dengan metode gradien sentrifugasi sukrosa pada kecepatan dan durasi berbeda*, Purwokerto: Fakultas Biologi Unsoed.
- Umami, M., 2013. *Karakteristik sel-sel spermatogenik ikan nilem (Osteochilus hasselti C.V.) yang diisolasi menggunakan gradien sentrifugasi sukrosa pada berbagai konsentrasi*, Purwokerto: Fakultas Biologi Unsoed.
- Unchern, S., 1999. Basic Techniques in Animal Tissue Culture. *Drug Delivery System Workshop*, 19-20 August, pp.1-30.

- Vaillant, C., Le Guellec, G., Pakdel, F. & Valotaire, Y., 1988. Vitellogenin gene expression in primary culture of male rainbow trout hepatocytes. *General and Comparative Endocrinology*, Volume 70, pp.284-290.
- Wijayanti, G. E., 2003. *Pre and post natal development of the germ cell in a marsupial, Tammar wallaby*, Melbourne: The University of Melbourne.
- Yanhong, F., Chenghua, H., Guofang, L. & Haibin, Z., 2008. Optimization of the isolation and cultivation of *Cyprinus carpio* primary hepatocytes. *Cytotechnology*, Volume 58, pp.85-92.

